

REGIONAL TRAINING ON THE PRODUCTION AND USE OF WASTE AND CIRCULAR ECONOMY STATISTICS AND INDICATORS

SESSION 3: MAIN CONCEPTS, TERMS, DEFINITIONS AND
CLASSIFICATIONS IN WASTE STATISTICS
(CONTINUED)

20-21 June 2024, Vienna International Centre (VIC), Vienna

IMPORTANT CLASSIFICATIONS

In this presentation:

- EWC-Stat, the European statistical waste nomenclature
- Sources of waste: economic activities (NACE) and households
- Waste management classifications – R and D codes (recovery and disposal operations)
- Trade of waste – Combined Nomenclature
- Hazardous waste codes – Basel Convention – see also Session 6
- UNSD guidance documents



IMPORTANT

In this presentation

- EWC-Stat
- Sources
- Waste

6. List of issues for further work

6.1 Review of international classifications

240. Circular economy is present in all stages of the product life cycle. When measuring circular economy, all activities leading to circularity should be taken into account, including for example, sustainable design and efforts to lengthen product life cycle. It might not be possible to capture all these activities directly with the help of activity or product classifications, also due to the fact

241. **There is currently no globally accepted classification of wastes.** The *CES Waste Statistics Framework* (UNECE, 2021) recommended that a classification be proposed for global use based on the **European Waste Classification for Statistics for both hazardous and non-hazardous waste.** This would improve international comparability and indicator development, thus improving monitoring of sustainable production and consumption. Also worth discussing is the need for a classification of waste-related products (such as secondary raw materials) by type of material (paper, aluminium, etc.). This would help inform policies on manufacturing and mineral extraction in a circular economy.


for monitoring the transboundary movements of waste: Wastes are not reflected consistently throughout the HS nomenclature. Solutions need to be found to better adapt HS for monitoring of transboundary movements of waste.

IMPORTANT

Eurostat classifica

- EWC-St
- Source
- Waste
operati
- Trade c
- Hazard

The screenshot shows the Eurostat website interface. At the top, there is a navigation bar with the Eurostat logo, a search bar, and links for 'Log in' and 'English'. Below the navigation bar is a main menu with categories: Home, Data, News, Publications, About us, Contact us, and Help. The breadcrumb trail indicates the current location: Home > Data > Metadata > Classifications. The main content area is titled 'METADATA Classifications'. On the left, there is a sidebar menu with options: Overview, Reference metadata reporting standards, Classifications (highlighted), Code lists, Concepts and definitions, and National metadata. The main text area contains an introductory paragraph, a 'Definition' section, and a 'Use' section.

eurostat  [Log in](#) [English](#) [Search](#)

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[Home](#) > [Data](#) > [Metadata](#) > [Classifications](#)

METADATA

Classifications

- Overview
- Reference metadata reporting standards
- Classifications**
- Code lists
- Concepts and definitions
- National metadata

A wide range of statistical classifications is used at European level. It depends on the statistical domain or data collection which classifications are used.

Definition

A statistical classification is

- an exhaustive and structured set of mutually exclusive and well-described categories
- often presented in a hierarchical format reflecting the numerical or alphabetical codes assigned to them
- used to standardise concepts and compile statistical data.

Use

Some classifications are used in a multidisciplinary manner, meaning in different statistical domains, such as the statistical classification of economic activities (NACE). Other classifications are specific for their domain, like the European short list for causes of death.

IMPORTANT

Eurostat classifica

- EWC-Stat
- Source
- Waste
- operati
- Trade c
- Hazard

The screenshot shows the Eurostat website interface. At the top, there is a navigation bar with the Eurostat logo, a search bar, and links for 'Log in' and 'English'. Below the navigation bar is a menu with options: Home, Data, News, Publications, About us, Contact us, and Help. The main content area shows a breadcrumb trail: Home > Data > Metadata > Classifications. Under the 'METADATA' section, there is a list of classification types. Three items are highlighted with blue boxes:

- European Waste Classification for Statistics (EWC-Stat Rev. 4)**
Details on the Waste classification can be found under the following links:
 - Thematic section: [Waste](#)
 - [EWC-Stat Rev. 4](#)
 - [Waste](#)
- European List of Wastes, 2015 (LoW 2015)**
- Statistical classification of economic activities (NACE)**
Details on the NACE can be found under the following links:
 - Thematic section: [NACE](#)
 - [NACE revision 2.1](#)
 - [NACE revision 2](#) and aggregates [Main industrial groupings](#) (MIGS 2007)

IMPORTANT

Eurostat classification

- EWC-Stat
- Source
- Waste operation
- Trade
- Hazard

The screenshot shows the Eurostat website interface. At the top, there is a search bar and navigation links. The main content area is titled "ESTAT_European_Waste_Classification_for_Statistics_(EWC-Stat_Rev.4)". On the left, a sidebar menu lists "Classifications" as the active section. The main content area displays a tree view of waste categories, with "07.6 Textile wastes (en)" selected and expanded to show sub-categories like "07.61 Worn clothing (en)", "07.62 Miscellaneous textiles wastes (en)", "07.63 Leather wastes (en)", and "07.7 Waste containing PCB (en)".

On the right side of the page, a table provides the preferred labels for the selected category in multiple languages:

Label	Language
07.6 Текстилни отпадъци	bg
07.6 Textilní odpad	cs
07.6 Tekstilaffald	da
07.6 Textilabfälle	de
07.6 Απόβλητα κλωστοϋφαντουργίας	el
07.6 Textile wastes	en
07.6 Resíduos textiles	es
07.6 Tekstiilijätmed	et
07.6 Tekstiilijätteet	fi
07.6 Déchets textiles	fr
07.6 Tekstilni otpad	hr
07.6 Textilhulladékok	hu
07.6 Rifiuti tessili	it
07.6 Tekstilės atliekos	lt
07.6 Tekstila atkritumi	lv
07.6 Skart tat-tessuti	mt
07.6 Textielafval	nl
07.6 Odpady tekstylne	pl
07.6 Resíduos têxteis	pt



IMPORTANT CLASSIFICATION

Eurostat classification

- EWC-Stat, the
- Sources of waste
- Waste management operations)
- Trade of waste
- Hazardous waste

<https://ec.europa.eu/eurostat/documents/342366/351806/Guidance-on-EWCStat-categories-2010.pdf/0e7cd3fc-c05c-47a7-818f-1c2421e55604>

Guidance

Supplement to

EUROSTAT Definitions of Waste Categories

Annex

Aggregates list			
EWC-Stat/Version 4			
Item No	Code	Description	Hazardous/Non-hazardous waste
1	01.1	Spent solvents	Hazardous
2	01.2	Acid, alkaline or saline wastes	Non-hazardous

EUROSTAT Definitions of Waste Categories			
Aggregates list			
EWC-Stat/Version 4			
Item No	Code	Description	Hazardous/Non-hazardous waste
41	12.1	Mineral waste from construction and demolition	Hazardous
42	12.2 + 12.3 + 12.5	Other mineral wastes	Non-hazardous
43	12.2 + 12.3 + 12.5	Other mineral wastes	Hazardous
44	12.4	Combustion wastes	Non-hazardous
45	12.4	Combustion wastes	Hazardous
46	12.6	Soils	Non-hazardous
47	12.6	Soils	Hazardous
48	12.7	Dredging spoils	Non-hazardous
49	12.7	Dredging spoils	Hazardous
50	12.8 + 13	Mineral wastes from waste treatment and stabilised wastes	Non-hazardous
51	12.8 + 13	Mineral wastes from waste treatment and stabilised wastes	Hazardous

28	08.1	Discarded vehicles	Hazardous
29	08.41	Batteries and accumulators wastes	Non-hazardous
31	08.41	Batteries and accumulators wastes	Hazardous
31	09.1	Animal and mixed food waste	Non-hazardous
32	09.2	Vegetal wastes	Non-hazardous
33	09.3	Animal faeces, urine and manure	Non-hazardous
34	10.1	Household and similar wastes	Non-hazardous
35	10.2	Mixed and undifferentiated materials	Non-hazardous
36	10.2	Mixed and undifferentiated materials	Hazardous
37	10.3	Sorting residues	Non-hazardous
38	10.3	Sorting residues	Hazardous
39	11	Common sludges	Non-hazardous
40	12.1	Mineral waste from construction and demolition	Non-hazardous



IMPORTANT CLASSIFICATION

Eurostat classification

Annex

Aggregates list			
EWC-Stat/Version 4			
Item No	Code	Description	Hazardous/Non-hazardous waste
1	01.1	Spent solvents	Hazardous
2	01.2	Acid, alkaline or saline wastes	Non-hazardous
3	01.3	Acid-alkaline reaction wastes	Hazardous

Min

Extract Regulation (EC) 2150/2002 ANNEX III: Table of equivalence

Cod

Mineral waste from construction and demolition

12.1

12 Mineral wastes

12.1 Construction and demolition wastes

12.11 Concrete, bricks and gypsum waste

0 Non-hazardous

- 17 01 01 concrete
- 17 01 02 bricks
- 17 01 03 tiles and ceramics
- 17 01 07 mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
- 17 05 08 track ballast other than those mentioned in 17 05 07
- 17 08 02 gypsum-based construction materials other than those mentioned in 17 08 01

1 Hazardous

- 17 01 06* mixtures of, or separate fractions of concrete, bricks, tiles and ceramics containing dangerous substances
- 17 05 07* track ballast containing dangerous substances
- 17 08 01* gypsum-based construction materials contaminated with dangerous substances

12.12 Waste hydrocarbonised road-surfacing material

0 Non-hazardous

- 17 03 02 bituminous mixtures other than those mentioned in 17 03 01

1 Hazardous

- 17 03 01* bituminous mixtures containing coal tar
- 17 03 03* coal tar and tarred products

12.13 Mixed construction wastes

0 Non-hazardous

- 17 06 04 insulation materials other than those mentioned in 17 06 01 and 17 06 03
- 17 09 04 mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03

1 Hazardous

- 17 02 04* glass, plastic and wood containing or contaminated with dangerous substances
- 17 06 03* other insulation materials consisting of or containing dangerous substances
- 17 09 01* construction and demolition wastes containing mercury
- 17 09 03* other construction and demolition wastes (including mixed wastes) containing dangerous substances

[https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&code=1806/Guidance on EWC-Stat-classification 2010.pdf/0e747a7-818f-1c](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&code=1806/Guidance%20on%20EWC-Stat-classification%202010.pdf/0e747a7-818f-1c)

IMPORTANT CLASSIFICATIONS

New manual on waste statistics:

- **Recovery operations (R-codes)** pursuant to the Waste Framework Directive

Code	Types of recovery operations
R1	Use principally as a fuel or other means to generate energy
R2	Solvent reclamation/regeneration
R3	Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)
R4	Recycling/reclamation of metals and metal compounds
R5	Recycling/reclamation of other inorganic materials
R6	Regeneration of acids or bases
R7	Recovery of components used for pollution abatement
R8	Recovery of components from catalysts
R9	Oil re-refining or other reuses of oil
R10	Land treatment resulting in benefit to agriculture or ecological improvement
R11	Use of wastes obtained from any of the operations numbered R1 to R10

IMPORTANT CLASSIFICATIONS

New manual on waste statistics:

- **Disposal operations (D-codes)** pursuant to the Waste Framework Directive

Code	Types of disposal operations
D1	Deposit into or onto land (e.g. landfill, etc.)
D2	Land treatment (e.g. biodegradation of liquid or sludgy discards in soils, etc.)
D3	Deep injection (e.g. injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.)
D4	Surface impoundment (e.g. placement of liquid or sludgy discards into pits, ponds or lagoons, etc.)
D5	Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)
D6	Release into a water body except seas/oceans
D7	Release into seas/oceans including sea-bed insertion
D10	Incineration on land
D12	Permanent storage (e.g. emplacement of containers in a mine, etc.)

IMPORTANT CLASSIFICATIONS

Territorial units

- Facilities

Overview

Principles

History

Maps

Territorial typologies

Local administrative units (LAU)

Non-EU regions

Correspondence tables

Visualisations

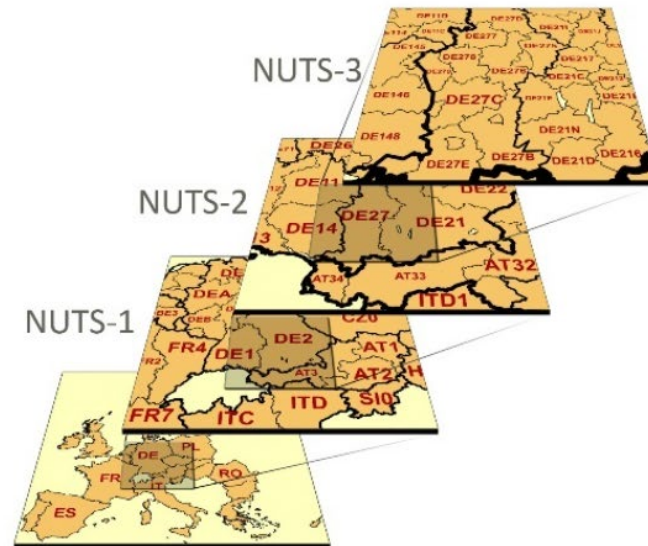
Publications

Legislation

The new [NUTS 2024 classification](#) is valid from 1 January 2024 and lists 92 regions at NUTS 1, 244 regions at NUTS 2 and 1 165 regions at NUTS 3 level.

The [NUTS classification](#) (Nomenclature of territorial units for statistics) is a hierarchical system for dividing up the economic territory of the EU for the purpose of:

- the collection, development and harmonisation of European regional statistics
- socio-economic analyses of the regions
 - NUTS 1: major socio-economic regions
 - NUTS 2: basic regions for the application of regional policies
 - NUTS 3: small regions for specific diagnoses
- framing of EU regional policies
 - [regions eligible for support from cohesion policy](#) have been defined at NUTS 2 level
 - the [cohesion report](#) has so far mainly been prepared at NUTS 2 level



IMPORTANT CLASSIFICATIONS

Classification server – Combined Nomenclature – CN codes

Combined Nomenclature (CN)

Details on the CN can be found under the following links:

- Thematic section: [International trade in goods](#)
- [CN 2024](#)
- [CN 2023](#)
- [CN 2022](#)
- [CN 2021](#)
- [CN 2020](#)
- [CN 2019](#)
- [CN 2018](#)
- [CN 2017](#)

... for import and export of waste:

“For countries that have no suitable other data sources for the determination of waste imports and exports, data from International Trade in Goods Statistics (ITGS) may be used as basis for estimation, in particular for recyclable wastes that are traded freely as goods”

IMPORTANT CLASSIFICATIONS

Combined

Combined

Details on the

- Thematic s
- [CN 2024](#)
- [CN 2023](#)
- [CN 2022](#)
- [CN 2021](#)
- [CN 2020](#)
- [CN 2019](#)
- [CN 2018](#)
- [CN 2017](#)

ShowVoc Datasets Search Translation Alignments Login

ESTAT_Combined_Nomenclature,_2024_(CN_2024)

Data Sparql Metadata

Concept Collection Scheme Property Alignments

5505 Waste (including noils, yarn waste and garnetted stock) of man-made fibres (en)

Type skos:Concept

In Scheme Combined Nomenclature, 2024 (CN 2024) (en)

Preferred Label 5505 Отпадъци от синтетични или изкуствени влакна (включително дреб, отпадъци от прежди и разvlakнените отпадъци) (bg)

5505 Dechets de fibres synthetiques ou artificielles (y compris les blouses, les déchets de fils et les effilochés) (fr)

5505 Dramhaíl (lena n-áirítear scothanna, dramhaíl snátha agus stoc gainneadaíthe) as snáithíní de dhéantús an duine (ga)

5505 Waste (including noils, yarn waste and garnetted stock) of man-made fibres (en)

5505 Waste, parings and scrap, of plastics (en)

4004 00 00 Waste, parings and scrap of rubber (other than hard rubber) and powders and granules obtained therefrom (en)

5103 Waste of wool or of fine or coarse animal hair, including yarn waste but excluding garnetted stock (en)

7112 Waste and scrap of precious metal or of metal clad with precious metal; other waste and scrap containing precious metal or precious-metal compounds, of a kind used principally for the recovery of precious metal other than goods of heading 8549 (en)

5501 Synthetic filament tow (en)

5502 Artificial filament tow (en)

5503 Synthetic staple fibres, not carded, combed or otherwise processed for spinning (en)

5504 Artificial staple fibres, not carded, combed or otherwise processed for spinning (en)

5506 Synthetic staple fibres, carded, combed or otherwise processed for spinning (en)

5507 00 00 Artificial staple fibres, carded, combed or otherwise processed for spinning (en)

5508 Sewing thread of man-made staple fibres, whether or not put up for retail sale (en)

5509 Yarn (other than sewing thread) of synthetic staple fibres, not put up for retail sale (en)

5510 Yarn (other than sewing thread) of artificial staple fibres, not put up for retail sale (en)

5511 Yarn (other than sewing thread) of man-made staple fibres, put up for retail sale (en)

5512 Woven fabrics of synthetic staple fibres, containing 85 % or more by weight of synthetic staple fibres (en)

5513 Woven fabrics of synthetic staple fibres, containing less than 85 % by weight of such fibres, mixed mainly or solely with cotton, of a weight not exceeding 170 g/m² (en)

waste

Search results

5 results found

Ok Cancel

ANNEX - List of CN-codes used for the calculation of Trade in waste.

The scope of 'waste' is measured in terms of relevant product codes from the [Combined Nomenclature](#) used in International Trade in Goods Statistics. The following CN-codes have been selected to perform the calculations.

Last update: May 2022

Product	Description	Waste operation (wst_oper) ¹	Share	Raw material (rawmat) ²
05059000	Skins and other parts of birds, with their feathers or down, feathers and parts of feathers, whether or not with trimmed edges, not further worked than cleaned, disinfected or treated for preservation; powder and waste of feathers or parts of feathers (excl. feathers used for stuffing and down)	RCV_R	1	ORG_ANI
05119110	Fish waste	RCV_R	1	ORG_ANI
05119910	Sinews or tendons of animal origin, parings and similar waste of raw hides or skins	RCV_R	1	ORG_ANI
09019010	Coffee husks and skins	RCV_R	1	ORG_VEG
15220091	Oil foots and dregs; soapstocks (excl. those containing oil with characteristics of olive oil)	RCV_R	1	ORG_VEG
15220099	Residues from treatment of fatty substances or animal and vegetable waxes (excl. those containing oil with characteristics of olive oil, oil foots and dregs and soapstocks)	RCV_R	0.5	ORG_VEG
15220099	Residues from treatment of fatty substances or animal and vegetable waxes (excl. those containing oil with characteristics of olive oil, oil foots and dregs and soapstocks)	RCV_R	0.5	ORG_ANI
18020000	Cocoa shells, husks, skins and other cocoa waste	RCV_R	1	ORG_VEG
23033000	Brewing or distilling dregs and waste	RCV_R	1	ORG_VEG
23070011	Wine lees, having a total alcoholic strength of <= 7,9% mas and a dry matter content >= 25% by weight	RCV_R	1	ORG_VEG
23070019	Wine lees (excl. wine lees having a total alcoholic strength of <= 7,9% and a dry matter content of >= 25% by weight)	RCV_R	1	ORG_VEG

IMPORTANT CLASSIFICATION

Combined Nomenclature

List of CN-codes used for trade

https://ec.europa.eu/eurostat/documents/8105938/8292490/Waste_product_CN-codes.pdf/3f46aa18-eeed-75c4-7038-53ec4d7481c2?t=1652941747246

IMPORTANT CLASSIFICATIONS

Hazardous waste „Basel“ - codes

Annexes to the Basel Convention

BASEL CONVENTION

ON THE CONTROL OF TRANSBOUNDARY MOVEMENTS
OF HAZARDOUS WASTES AND THEIR DISPOSAL

PROTOCOL ON LIABILITY AND COMPENSATION
FOR DAMAGE RESULTING FROM TRANSBOUNDARY
MOVEMENTS OF HAZARDOUS WASTES AND THEIR DISPOSAL

TEXTS AND ANNEXES

REVISED IN 2019



ANNEX I

CATEGORIES OF WASTES TO BE CONTROLLED

Waste Streams

Y1	Clinical wastes from medical care in hospitals, medical centers and clinics
Y2	Wastes from the production and preparation of pharmaceutical products
Y3	Waste pharmaceuticals, drugs and medicines
Y4	Wastes from the production, formulation and use of biocides and phytopharmaceuticals
Y5	Wastes from the manufacture, formulation and use of wood preserving chemicals
Y6	Wastes from the production, formulation and use of organic solvents
Y7	Wastes from heat treatment and tempering operations containing cyanides
Y8	Waste mineral oils unfit for their originally intended use
Y9	Waste oils/water, hydrocarbons/water mixtures, emulsions
Y10	Waste substances and articles containing or contaminated with polychlorinated biphenyls (PCBs) and/or polychlorinated terphenyls (PCTs) and/or polybrominated biphenyls (PBBs)
Y11	Waste tarry residues arising from refining, distillation and any pyrolytic treatment
Y12	Wastes from production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish
Y13	Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives
Y14	Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on man and/or the environment are not known
Y15	Wastes of an explosive nature not subject to other legislation
Y16	Wastes from production, formulation and use of photographic chemicals and processing materials

IMPORTANT CLASSIFICATIONS

Hazardous waste: Basel Convention Y – codes Waste categories to be controlled

ANNEX I		Wastes having as constituents:	
CATEGORIES OF WASTES TO BE CONTROLLED		Y17	Wastes resulting from surface treatment
Waste Streams		Y18	Residues arising from industrial waste treatment
Y1	Clinical wastes from medical centers and clinics	Y19	Metal carbonyls
Y2	Wastes from the production of organic solvents	Y20	Beryllium; beryllium compounds
Y3	Waste pharmaceuticals	Y21	Hexavalent chromium compounds
Y4	Wastes from the production of phytopharmaceuticals	Y22	Copper compounds
Y5	Wastes from the manufacture of chemicals	Y23	Zinc compounds
Y6	Wastes from the production of organic solvents	Y24	Arsenic; arsenic compounds
Y7	Wastes from heat treatment of cyanides	Y25	Selenium; selenium compounds
Y8	Waste mineral oils unfit for reuse	Y26	Cadmium; cadmium compounds
Y9	Waste oils/water, hydrocarbons	Y27	Antimony; antimony compounds
Y10	Waste substances and polychlorinated biphenyls (PCTs) and/or polybrominated biphenyls (PBBs)	Y28	Tellurium; tellurium compounds
Y11	Waste tarry residues after treatment	Y29	Mercury; mercury compounds
Y12	Wastes from production of paints, lacquers, varnishes	Y30	Thallium; thallium compounds
Y13	Wastes from production of plasticizers, glues/adhesives	Y31	Lead; lead compounds
Y14	Waste chemical substances from teaching activities which have effects on man and/or the environment	Y32	Inorganic fluorine compounds excluding hexafluorides
Y15	Wastes of an explosive nature	Y33	Inorganic cyanides
Y16	Wastes from production and processing of metal	Y34	Acidic solutions or acids in solid form
		Y35	Basic solutions or bases in solid form
		Y36	Asbestos (dust and fibres)
		Y37	Organic phosphorus compounds
		Y38	Organic cyanides
		Y39	Phenols; phenol compounds including chlorophenols
		Y40	Ethers
		Y41	Halogenated organic solvents
		Y42	Organic solvents excluding halogenated solvents
		Y43	Any congener of polychlorinated dibenzo-furan
		Y44	Any congener of polychlorinated dibenzo-p-dioxin
		Y45	Organohalogen compounds other than substances referred to in this Annex (e.g. Y39, Y41, Y42, Y43, Y44)

(a) To facilitate the application of this Convention, and subject to paragraphs (b), (c) and (d), wastes listed in Annex VIII are characterized as hazardous pursuant to Article 1, paragraph 1 (a), of this Convention, and wastes listed in Annex IX are not covered by Article 1, paragraph 1 (a), of this Convention.

(b) Designation of a waste on Annex VIII does not preclude, in a particular case, the use of Annex III to demonstrate that a waste is not hazardous pursuant to Article 1, paragraph 1 (a), of this Convention.

(c) Designation of a waste on Annex IX does not preclude, in a particular case, characterization of such a waste as hazardous pursuant to Article 1, paragraph 1 (a), of this Convention if it contains Annex I material to an extent causing it to exhibit an Annex III characteristic.

(d) Annexes VIII and IX do not affect the application of Article 1, paragraph 1 (a), of this Convention for the purpose of characterization of wastes.⁴

<https://www.basel.int/Portals/4/download.aspx?d=U-NEP-CHW-IMPL-CONVTEXT.English.pdf>

⁴ The amendment whereby paragraphs (a), (b), (c) and (d) were added to at the end of Annex I entered into force on 6 November 1998, six months following the issuance of depositary notification C.N.72.1998 of 6 May 1998 (reflecting Decision IV/9, adopted by the Conference of the Parties at its fourth meeting).

IMPORTANT CLASSIFICATIONS

Hazardous waste: Basel Convention Y – codes Waste categories to be controlled

ANNEX I		ANNEX II ⁵	
CATEGORIES OF WASTES TO BE CONTROLLED		CATEGORIES OF WASTES TO BE CONTROLLED	
Waste Streams		Wastes having as constituents:	
Y1	Clinical wastes from medical centers and clinics	Y17	Wastes resulting from surface treatment
Y2	Wastes from the production of pharmaceuticals	Y18	Residues arising from industrial waste treatment
Y3	Waste pharmaceuticals	Y19	Metal carbonyls
Y4	Wastes from the production of phytopharmaceuticals	Y20	Beryllium; beryllium compounds
Y5	Wastes from the manufacture of chemicals	Y21	Hexavalent chromium compounds
Y6	Wastes from the production of dyes	Y22	Copper compounds
Y7	Wastes from heat treatment of cyanides	Y23	Zinc compounds
Y8	Waste mineral oils unfit for reuse	Y24	Arsenic; arsenic compounds
Y9	Waste oils/water, hydrocarbons	Y25	Selenium; selenium compounds
Y10	Waste substances and polychlorinated biphenyls (PCTs) and/or polybrominated biphenyls (PBBs)	Y26	Cadmium; cadmium compounds
Y11	Waste tarry residues after treatment	Y27	Antimony; antimony compounds
Y12	Wastes from production of paints, lacquers, varnishes	Y28	Tellurium; tellurium compounds
Y13	Wastes from production of plasticizers, glues/adhesives	Y29	Mercury; mercury compounds
Y14	Waste chemical substances having toxic effects on man and/or animals	Y30	Thallium; thallium compounds
Y15	Wastes of an explosive nature	Y31	Lead; lead compounds
Y16	Wastes from production and processing of metal	Y32	Inorganic fluorine compounds except fluorides
		Y33	Inorganic cyanides
		Y34	Acidic solutions or acids in solid form
		Y35	Basic solutions or bases in solid form
		Y36	Asbestos (dust and fibres)
		Y37	Organic phosphorus compounds
		Y38	Organic cyanides
		Y39	Phenols; phenol compounds including chlorophenols
		Y40	Ethers
		Y41	Halogenated carbon compounds
		Y42	Organic solvents
		Y43	Any congeners of Y42
		Y44	Any congeners of Y41
		Y45	Organohalogenated compounds Annex (e.g. Y3)
		Y46	Wastes collected from landfills
		Y47	Residues arising from the treatment of waste
		Y48 ^{6,7}	Plastic waste, including the following: • Plastic waste that is environmentally sound and other types of waste • Plastic waste listed in Annex I - Plastic waste almost exclusively ¹¹ consisting of one cured resin or condensation product, including but not limited to the following resins: • Urea formaldehyde resins • Phenol formaldehyde resins • Melamine formaldehyde resins • Epoxy resins • Alkyd resins - Plastic waste almost exclusively ¹¹ consisting of one of the following fluorinated polymers: ¹² • Perfluoroethylene/propylene (FEP) • Perfluoroalkoxy alkanes: • Tetrafluoroethylene/perfluoroalkyl vinyl ether (PFA) • Tetrafluoroethylene/perfluoromethyl vinyl ether (MFA) • Polyvinylfluoride (PVF) • Polyvinylidene fluoride (PVDF) • Mixtures of plastic waste, consisting of polyethylene (PE), polypropylene (PP) and/or polyethylene terephthalate (PET), provided they are destined for separate recycling ¹³ of each material and in an environmentally sound manner and almost free from contamination and other types of wastes. ¹⁰

<https://www.basel.int/Portals/4/download.aspx?d=U-NEP-CHW-IMPL-CONVTEXT.English.pdf>

¹⁰ In relation to "almost free from contamination and other types of wastes."
¹¹ In relation to "almost exclusively", in
¹² Post-consumer wastes are excluded.
¹³ Recycling/reclamation of organic substances that are not used as solvents (R3 in Annex IV, sect. B), with recycling/reclamation, if needed, through a separate facility to be established, provided that it is followed by

IMPORTANT CLASSIFICATIONS

Hazardous waste:

ANNEX III		
LIST OF HAZARDOUS CHARACTERISTICS		
UN Class ¹⁴	Code	Characteristics
1	H1	Explosive
		An explosive substance or waste (or wastes) which is liable to undergo a reaction of producing gas, pressure and at such a rate as to be dangerous to the surroundings.
3	H3	Flammable liquids
		The word "flammable" means "inflammable". Flammable liquids, mixtures of liquids, or solutions or suspensions of solids in liquids, in solution or suspension, such as varnishes, lacquers, substances or waste, account of their danger. They give off a flammable vapour more than 60.5°C, closed-cup test, or more than 65.6°C, open-cup test. The results of closed-cup tests and of closed-cup tests are often variable and above figures to make a comparison would be within the scope of the test.
4.1	H4.1	Flammable solids
		Solids, or waste solids, which are explosives, which on transport are readily ignited and contribute to fire through

UN Class ¹⁴	Code	Characteristics
4.2	H4.2	Substances or wastes liable to spontaneous combustion
		Substances or wastes which are liable to spontaneously ignite under normal conditions encountered during transport, or to heating up on contact with air and being then liable to catch fire.
4.3	H4.3	Substances or wastes which, in contact with water, emit flammable gases
		Substances or wastes which, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.
5.1	H5.1	Oxidizing
		Substances or wastes which, while in themselves not necessarily combustible, may, generally by yielding oxygen, cause, or contribute to, the combustion of other materials.
5.2	H5.2	Organic Peroxides
		Organic substances or wastes which contain the bivalent-o-o-structure are themselves unstable substances which may undergo an exothermic self-accelerating decomposition.
6.1	H6.1	Poisonous (Acute)
		Substances or wastes liable either to cause death or serious injury or to harm human health if swallowed or inhaled or by skin contact.
6.2	H6.2	Infectious substances
		Substances or wastes containing viable micro-organisms or their toxins which are known or suspected to cause disease in animals or humans.
8	H8	Corrosives
		Substances or wastes which, by chemical action, will cause severe damage when in contact with living tissue, or, in the case of leakage, will materially damage, or even destroy, other goods or the means of transport; they may also cause other hazards.

Hazardous characteristics

UN Class ¹⁴	Code	Characteristics
9	H10	Liberation of toxic gases in contact with air or water
		Substances or wastes which, by interaction with air or water, are liable to give off toxic gases in dangerous quantities.
9	H11	Toxic (Delayed or chronic)
		Substances or wastes which, if they are inhaled or ingested or if they penetrate the skin, may involve delayed or chronic effects, including carcinogenicity.
9	H12	Ecotoxic
		Substances or wastes which if released present or may present immediate or delayed adverse impacts to the environment by means of bioaccumulation and/or toxic effects upon biotic systems.
9	H13	Capable, by any means, after disposal, of yielding another material, e.g., leachate, which possesses any of the characteristics listed above.

Tests


The potential hazards posed by certain types of wastes are not yet fully documented; tests to define quantitatively these hazards do not exist. Further research is necessary in order to develop means to characterise potential hazards posed to man and/or the environment by these wastes. Standardized tests have been derived with respect to pure substances and materials. Many countries have developed national tests which can be applied to materials listed in Annex I, in order to decide if these materials exhibit any of the characteristics listed in this Annex.

<https://www.basel.int/Portals/4/download.aspx?d=UNEP-CHW-IMPL-CONVTEXT.English.pdf>

¹⁴ Corresponds to the hazard classification system included in the United Nations Recommendations on the Transport of Dangerous Goods (ST/SG/AC.10/1Rev.5, United Nations, New York, 1988).

IMPORTANT CLASSIFICATIONS

UNSD guidance – FDES Chapter 3.3



70 Framework for the Development of Environment Statistics (FDES 2013)

Information for Topic 3.2.3

Indicator text—Tier 2, italicized	Category of measurement	Potential aggregations and scales	Methodological guidance
<i>Wastewater discharged to the environment</i>	Volume	<ul style="list-style-type: none"> By treatment type (e.g., primary, secondary, tertiary) By recipient (e.g., surface water, groundwater, wetland, sea, land) 	<ul style="list-style-type: none"> UNSD: IRWS ISIC Rev. 4, Section E, Division 35 and 36 UNSD: Environment Statistics Section—Water Questionnaire
<i>Wastewater discharged to the treatment plant</i>	Volume	<ul style="list-style-type: none"> By ISIC economic activity National Subnational By source (point/non-point source) 	<ul style="list-style-type: none"> UNSD: Environment Statistics Section—Water Questionnaire
<i>Wastewater discharged to the environment</i>	Mass	<ul style="list-style-type: none"> By pollutant or pollution parameter (e.g., BOD, COD, nitrogen, phosphorous) National Subnational Net emission by ISIC economic activity By source (point/non-point source) 	

Subcomponent 3.3: Generation and Management of Waste

3.180. This subcomponent includes statistics on the amount and characteristics of waste, defined as discarded material for which the owner or user has no further use, generated by human activities in the course of production and consumption processes. To reduce the amount of waste generated and increase the share of waste that is recycled and reused as material or energy source are central to sustainable consumption and production and natural resource management. The final disposal of waste in the environment, even if in a controlled manner, creates pollution and occupies considerable land areas.

3.181. Relevant statistics cover the amount of waste generated by different sources that are economic activities (by ISIC categories) and households. Waste can also be classified based on its material content or other characteristics. Waste is usually collected at the place of generation and transported to treatment facilities (for recycling and reuse or to reduce its amount or hazardousness before final disposal) and to disposal facilities (for final disposal).

3.182. Policymakers, particularly local governments, require statistics on waste in order to assess how its generation changes over time. This in turn assists in planning for present and future waste management in terms of transportation and facilities required. Statistics on waste are also needed to develop strategies to encourage waste reduction, reuse and recycling.

Topic 3.3.1: Generation of waste

3.183. This topic includes statistics describing the amount of waste generated before any collection or treatment, by waste type, and by generator (by economic activity (by ISIC) and households). The waste lists that countries and international organizations use for waste statistics are usually based either on the generating process or the material content of the waste, or on the combination of the two. In many cases, the origin of the waste (the economic activity) generally determines the material content of the waste.

3.184. Ideally, statistics on the amount and type of waste generated should be reported by the establishments (economic units) that generate it. However, in practice these statistics are usu-

<https://unstats.un.org/unstats/envstats/fdes.cshtml>

IMPORTANT CLASSIFICATIONS

UNSD guidance – SEEA-CF Chapter 3.6

<https://seea.un.org/content/seea-central-framework>

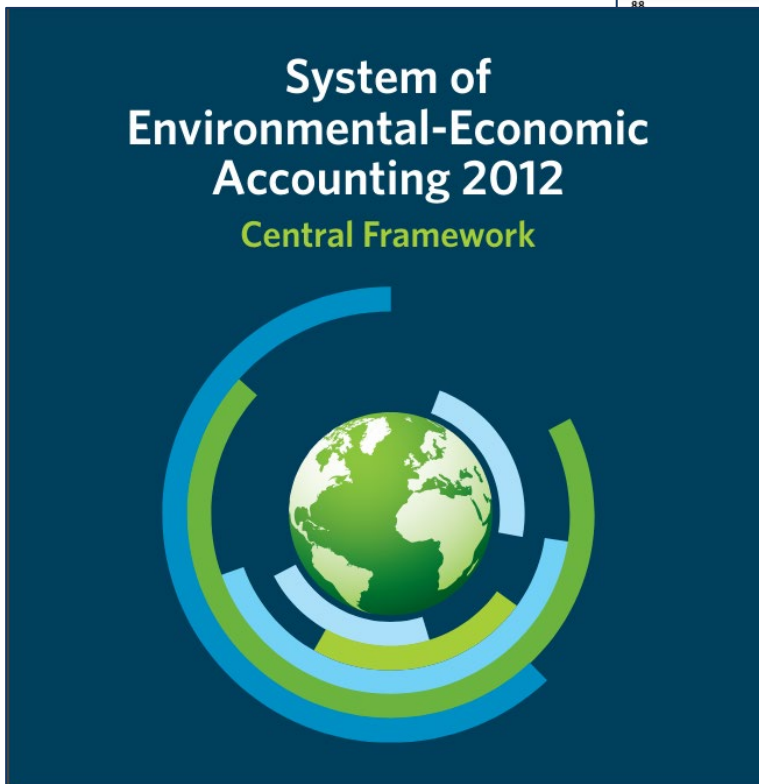


Table 3.8
Water emissions account (tonnes) (cont.)

Physical use table for gross releases of substances

	Generation of gross releases of water	
	Sewerage industry	Other industries
Emissions received by the environment		
BOD/COD*		
Suspended solids		
Heavy metals		
Phosphorus		
Nitrogen		
Collection by other economic units		
BOD/COD*	16 877	
Suspended solids		
Heavy metals		
Phosphorus	7 600	
Nitrogen	45 602	

Note: Dark grey cells are null by definition.
* BOD (biological oxygen demand) and COD (chemical oxygen demand) are measured under specific conditions in the biological oxidation process, and COD is measured as the concentration of oxygen consumed under specific conditions in the oxidation of organic or inorganic matter in water.

3.267 Included in the accounts are emissions from vessels operating within a country's waters. These flows are recorded in the accounts undertaken in water resources or sea and recorded against the relevant industry.

3.6.5 Solid waste accounts

3.268 Solid waste accounts are useful for measuring the management of flows of waste and the management of flows of waste or directly to the environment. Measurements of specific waste materials may be undertaken in solid waste accounts along with economic data in both physical and monetary accounts.

The definition of solid waste

3.269 Following the definition provided in the SEEA-CF, solid waste is defined as materials that are no longer required by the owner for the purposes for which they were received or used. Where the unit discarding the material is small—for example, a household—this flow is considered a product

3.270 Discarded materials sold as second-hand products—for example, a second-hand car or furniture—should be treated as flows of products and not treated as solid waste. In the determination of whether a material is a second-hand product, consideration may be given of the extent to which the receiving unit can reuse the product for the same purpose for which it was conceived.

3.271 In practice, in many countries, statistics on solid waste will be based on legal and administrative lists of materials determined to be solid waste. However, the principles above should provide a basis for the measurement of solid waste in countries where legal or administrative processes concerning waste do not exist or are limited in scope. These principles may also provide a basis for the establishment or amendment of lists of solid waste materials.

Structure of the solid waste account

3.272 The structure of the solid waste account is presented in table 3.9 located on pages 90 and 91. It follows the logic of the general PSUT described in section 3.2. There is no standard international classification of solid waste but for illustrative purposes, the table includes an indicative listing of types of solid waste based on the statistical version of the European Waste Catalogue (EWC-Stat).²⁸

3.273 The upper half of the table is the supply table, whose first part, covering "Generation of solid waste residuals", shows the generation of solid waste by industries and households. It also shows the supply of solid waste from the rest of the world (recorded as imports) and also solid waste recovered from the environment (e.g., oil recovered following an offshore oil spill, debris collected following a natural disaster, or the excavation of soil from locations at which hazardous chemicals were used).

3.274 The bottom half of the table is the use table, whose first part, covering "Collection and disposal of solid waste residuals", shows the collection and disposal of solid waste through various activities within the waste collection, treatment and disposal industry and through related activities in other industries. It also shows the flow of solid waste to the rest of the world as exports and the flow of solid waste direct to the environment.

3.275 The columns of the table highlight the various activities of the waste collection, treatment and disposal industry. These are landfill operation, incineration of solid waste (of which incineration of solid waste to produce energy is separately identified), recycling and reuse activities, and other treatment of solid waste. Other treatment includes the use of physical-chemical processes, the use of mechanical-biological processes, and the storage of radioactive waste. More industry detail may be provided depending on analytical requirements and available information. Of particular interest may be the identification of cases where the activities just listed are undertaken as secondary or own-account production within other industries.

3.276 So that all information on the waste collection, treatment and disposal industry can be presented as a single group, the accumulation of waste in landfill sites is not presented in a distinct accumulation column as in the general PSUT.

3.277 In the second part of the supply table, on "Generation of solid waste products", and in the second part of the use table, on "Use of solid waste products", the flows of solid waste that are considered products rather than residuals are recorded, following the distinction described above. The flows recorded here relate to cases where a solid waste product is identified at the time of disposal by the discarding unit. The flow is recorded in the second part of the supply

²⁸ See also Guidance on classification of waste according to EWC-Stat categories (Eurostat, 2010).

REGIONAL TRAINING ON THE PRODUCTION AND USE OF WASTE AND CIRCULAR ECONOMY STATISTICS AND INDICATORS

Thank you !

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